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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,173	01/31/2002	Hermann Putter	217838US0PCT	6239
22850	7590	12/16/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WONG, EDNA	
			ART UNIT	PAPER NUMBER

1753

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/030,173

Applicant(s)

PUTTER ET AL.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-31, 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 15-28, 32-34, 36-38 and 41-52 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

This is in response to the Amendment dated November 12, 2003. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Response to Arguments***

#### **Claim Objections**

Claim **49** has been objected to because of minor informalities:.

The objection of claim 49 has been withdrawn in view of Applicants' amendment.

#### **Claim Rejections - 35 USC § 112**

Claims **15-52** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 15-52 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicants' amendment.

### ***Response to Amendment***

#### ***Claim Objections***

Claims **23, 25, 35, 37, 41, 42, 47 and 49** are objected to because of the following informalities:

Claim 23

line 3, the word -- the -- should be inserted after the word "of".

Claim 25

line 3, it is suggested that the word "starting" be deleted. See claim 15, line 2.

Claim 35

line 3, the word -- the -- should be inserted after the word "of".

Claim 37

line 3, it is suggested that the word "starting" be deleted. See claim 29, line 3.

Claim 41

line 5, the word -- from -- should be inserted after the word "metal" (second occurrence).

line 19, the word "acetylated" should be amended to the word -- acetalated --.

Claim 42

line 8, line 5, the word -- from -- should be inserted after the word "metal" (second occurrence).

line 15, the word "formula" should be amended to the word -- formulae --.

Claim 47

line 3, the word -- the -- should be inserted after the word "of".

Claim 49

line 3, it is suggested that the word "starting" be deleted. See claim 41, line 3.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

I. Claims **15-28 and 41-52** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 15

line 4, "at least one metal salt (S)" is not supported by the present specification.

Claim 41

line 5, "at least one metal salt (S)" is not supported by the present specification.

Claim 42

line 8, "at least one metal salt (S)" is not supported by the present specification.

II. Claims **15-28, 32-34, 36-38, 42-46 and 48-50** are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15

line 17, the word "additionally" should be deleted because there are 3  
*independent* definitions for R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>:

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> are **(1)** each independently hydrogen, C<sub>1</sub>- to C<sub>20</sub>-alkyl, C<sub>2</sub>- to C<sub>20</sub>-alkenyl, C<sub>2</sub>- to C<sub>20</sub>-alkynyl, C<sub>3</sub>- to C<sub>20</sub>-cycloalkyl, C<sub>4</sub>- to C<sub>20</sub>-cycloalkyl-alkyl, C<sub>1</sub>- to C<sub>20</sub>-hydroxyalkyl, or aryl; or

**(2)** C<sub>7</sub>- to C<sub>20</sub>-arylalkyl which is unsubstituted or substituted by C<sub>1</sub>- to C<sub>8</sub>-alkyl, C<sub>1</sub>- to C<sub>8</sub>-alkoxy, halogen, C<sub>1</sub>- to C<sub>4</sub>-haloalkyl, phenyl, phenoxy, halophenyl, halophenoxy, carboxyl, C<sub>2</sub>- to C<sub>8</sub>-alkoxycarbonyl or cyano, or

**(3)** R<sup>1</sup> and R<sup>2</sup> together are a C<sub>2</sub>- to C<sub>9</sub>-alkandiyl unit which is unsubstituted, monosubstituted or disubstituted by C<sub>1</sub>- to C<sub>8</sub>-alkyl, C<sub>1</sub>- to C<sub>8</sub>-alkoxy and/or halogen and in which one or two methyl groups may also be replaced by a (CH=CH) unit and R<sup>3</sup> is additionally an acetalated carbonyl group in which the alkoxy group is derived from an alcohol of the general formula II.

The third definition for R<sup>3</sup> is independent from the other 2 definitions, and

therefore,  $R^3$  in definition 3 cannot be "is additionally".

line 36, the word "additionally" should be deleted because there are 3 independent definitions for  $R^1$ ,  $R^2$ ,  $R^3$ :

$R^1$ ,  $R^2$ ,  $R^3$  are (1) each independently hydrogen,  $C_1$ - to  $C_{20}$ -alkyl,  $C_2$ - to  $C_{20}$ -alkenyl,  $C_2$ - to  $C_{20}$ -alkynyl,  $C_3$ - to  $C_{20}$ -cycloalkyl,  $C_4$ - to  $C_{20}$ -cycloalkyl-alkyl,  $C_1$ - to  $C_{20}$ -hydroxyalkyl, or aryl; or

(2)  $C_7$ - to  $C_{20}$ -arylalkyl which is unsubstituted or substituted by  $C_1$ - to  $C_8$ -alkyl,  $C_1$ - to  $C_8$ -alkoxy, halogen,  $C_1$ - to  $C_4$ -haloalkyl, phenyl, phenoxy, halophenyl, halophenoxy, carboxyl,  $C_2$ - to  $C_8$ -alkoxycarbonyl or cyano, or

(3)  $R^1$  and  $R^2$  together are a  $C_2$ - to  $C_9$ -alkandiyl unit which is unsubstituted, monosubstituted or disubstituted by  $C_1$ - to  $C_8$ -alkyl,  $C_1$ - to  $C_8$ -alkoxy and/or halogen and in which one or two methyl groups may also be replaced by a (CH=CH) unit and  $R^3$  is additionally an acetalated carbonyl group in which the alkoxy group is derived from an alcohol of the general formula II.

The third definition for  $R^3$  is independent from the other 2 definitions, and therefore,  $R^3$  in definition 3 cannot be "is additionally".

#### Claim 19

line 2, "the starting compound" lacks antecedent basis.

It is suggested that the words "the starting compound" be amended to the words

-- the compound of the general formula V --. See claim 15, line 1.

Claim 20

lines 1-2, it is unclear how there can be "anions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one anion ( $A^-$ ) in the salt.

Claim 21

lines 1-2, it is unclear how there can be "anions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one anion ( $A^-$ ) in the salt.

Claim 22

lines 1-2, it is unclear how there can be "cations" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one cation ( $M^+$ ) in the salt.

Claim 23

line 2, it is unclear how there can be "metal ions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one metal ion ( $M^+$ ) in the salt.

Claim 24

lines 1-2, it appears that "a halogen-containing auxiliary electrolyte" is further limiting the auxiliary electrolyte recited in claim 15, lines 3-4. However, it is unclear if it



is.

If it is, then it is suggested that the words "wherein the electrolysis liquid contains" be amended to the words -- wherein the auxiliary electrolyte is --.

Claim 25

line 5, it appears that "a halogen-containing auxiliary electrolyte" is further limiting the auxiliary electrolyte recited in claim 15, lines 3-4. However, it is unclear if it is.

If it is not, then what is the difference between the auxiliary electrolyte and the halogen-containing auxiliary electrolyte?

line 7, "the desired products" lack antecedent basis.

It is suggested that the word "products" be amended to the word -- compound --.

See claim 15, line 1.

Claim 26

line 2, "the starting compound(s)" (plural) lack antecedent basis.

line 2, "the starting compound(s)" lack antecedent basis:

It is suggested that the words "the starting compound" be amended to the words -- the compound of the general formula V --. See claim 15, line 1.

lines 2-3, it is unclear what are the product(s) of the general formula I and V. Formula I is the compound prepared and formula V is the compound subjected to an electrochemical reaction.

line 3, it is unclear what are "the abovementioned compound(s)".

Claim 32

lines 1-2, it is unclear how there can be "anions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one anion ( $A^-$ ) in the salt.

Claim 33

lines 1-2, it is unclear how there can be "anions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one anion ( $A^-$ ) in the salt.

Claim 34

lines 1-2, it is unclear how there can be "cations" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one cation ( $M^+$ ) in the salt.

Claim 36

lines 1-2, it appears that "a halogen-containing auxiliary electrolyte" is further limiting the auxiliary electrolyte recited in claim 29, lines 4-5. However, it is unclear if it

is.

If it is, then it is suggested that the words "wherein the electrolysis liquid contains" be amended to the words -- wherein the auxiliary electrolyte is --.

Claim 37

line 7, "the desired products" lack antecedent basis.

It is suggested that the word "products" be amended to the word -- compound --.  
See claim 29, line 1.

line 9, "formulae ... V" lacks antecedent basis.

lines 8-9, it is unclear what are the by-products of electrolysis which are derived from the compounds of general formulae III and V. Formula III is the compound prepared and formula V doesn't exist.

Claim 38

line 2, "the starting compound(s)" (plural) lack antecedent basis.

line 2, "the starting compound(s)" lack antecedent basis.

It is suggested that the words "the starting compound" be amended to the words -- the compound of the general formula Va --. See claim 29, line 3.

lines 2-3, it is unclear what are the product(s) of the general formula III and V.  
Formula III is the compound prepared and formula V does not exist.

line 3, it is unclear what are "the abovementioned compound(s)".

Claim 42

line 7, "formula II" is missing in the claim.

Claim 44

lines 1-2, it is unclear how there can be "anions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one anion ( $A^-$ ) in the salt.

Claim 45

lines 1-2, it is unclear how there can be "anions" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one anion ( $A^-$ ) in the salt.

Claim 46

lines 1-2, it is unclear how there can be "cations" in the metal salt. It appears that the metal salt (e.g.,  $M^+A^-$ ) would have only one cation ( $M^+$ ) in the salt.

Claim 48

lines 1-2, it appears that "a halogen-containing auxiliary electrolyte" is further limiting the auxiliary electrolyte recited in claim 41, lines 4-5. However, it is unclear if it is.

If it is, then it is suggested that the words "wherein the electrolysis liquid contains" be amended to the words -- wherein the auxiliary electrolyte is --.

Claim 49

line 5, it appears that "a halogen-containing auxiliary electrolyte" is further limiting the auxiliary electrolyte recited in claim 41, lines 4-5. However, it is unclear if it is.

If it is not, then what is the difference between the auxiliary electrolyte and the halogen-containing auxiliary electrolyte?

line 7, "the desired products" lack antecedent basis.

It is suggested that the word "products" be amended to the word -- compound --.  
See claim 41, line 1.

lines 8-9, it is unclear what are the by-products of electrolysis which are derived from the compounds of general formulae IV and Vb. Formula IV is the compound prepared and formula Vb is the compound subjected to an electrochemical reaction.

Claim 50

line 2, "the starting compound(s)" (plural) lack antecedent basis.

line 2, "the starting compound(s)" lack antecedent basis.

It is suggested that the words "the starting compound" be amended to the words -- the compound of the general formula Vb --. See claim 41, line 3.

lines 2-3, it is unclear what are the product(s) of the general formula IV and Vb. Formula III is the compound prepared and formula Vb is the compound subjected to an electrochemical reaction.

line 3, it is unclear what are "the above mentioned compound(s)".

***Allowable Subject Matter***

The following is a statement of reasons for the indication of allowable subject matter:

Claims **15-28** define over the prior art of record because the prior art does not teach or suggest a process for the preparation of a compound of the general formula I comprising the step of subjecting as presently claimed, esp., wherein catalytic amounts of at least one metal salt (S) are derived from a metal from sub-groups Ib, IIb, VIb and VIIIb of the periodic chart or from lead, tin or rhenium.

Claims **29-40** define over the prior art of record because the prior art does not teach or suggest a process for preparing a compound of the general formula III comprising the step of subjecting as presently claimed, esp., wherein a catalytic amount of a metal salt (S) is derived from a metal from sub-groups Ib, IIb, VIb and VIIIb of the periodic chart or from lead, tin or rhenium.

Claims **41 and 44-52** define over the prior art of record because the prior art does not teach or suggest a process for preparing a compound of the general formula IV comprising the step of subjecting as presently claimed, esp., wherein a catalytic amount of at least one metal salt (S) is derived from a metal sub-groups Ib, IIb, VIb and VIIIb of the periodic chart or from lead, tin or rhenium.

Claims **42 and 43** define over the prior art of record because the prior art does not teach or suggest a process for the preparation of a compound of the general formula IVa comprising the step of subjecting as presently claimed, esp., wherein a catalytic amount of at least one metal salt (S) is derived from a metal sub-groups Ib, IIb, VIb and VIIIb of the periodic chart or from lead, tin or rhenium.

The prior art does not contain any language that teaches or suggests the above. *Shono et al.* teaches potassium iodide (KI). Potassium is a member of Group I (the alkali metal group) and not Group IB. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claims 23, 25, 35, 27, 41, 42, 47 and 49 would be allowable if rewritten or

amended to overcome the claim rejection(s) set forth in this Office action.

Claims 15-28 and 41-52 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action.

Claims 15-28, 32-34, 36-38, 42-46 and 48-50 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (703) 308-3818. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

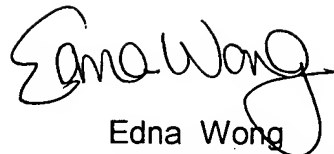
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.



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A handwritten signature in black ink, appearing to read "Edna Wong". The signature is fluid and cursive, with the first name "Edna" and last name "Wong" clearly distinguishable.

Edna Wong  
Primary Examiner  
Art Unit 1753

EW  
December 11, 2003